

What is claimed is:

1. A high-level meta-layer software product for integrating the communications within a manufacturing facility comprising:

a graphic user interface generator for generating browser compatible graphic displays;

5 a structured data exchange for providing data to the graphic user interface generator for display; and,

software wrappers for enabling communication between the structured data exchange and one or more software servers.

10 2. A software product according to Claim 1, where the graphic user interface generator is an HTML page generator.

3. A software product according to Claim 1, where the graphic user interface generator is JAVA.

4. A software product according to Claim 1, where the structured data exchange comprises a network infrastructure.

15 5. A software product according to Claim 5, where the network infrastructure comprises one or more software servers.

6. A software product according to Claim 6, where at least one of the software servers is operating under UNIX.

20 7. A software product according to Claim 6, where at least one of the software servers is operating under LINUX.

8. A software product according to Claim 6, where at least one of the software servers is operating under Windows.

9. A software product according to Claim 6, where at least one of the software servers is operating under DOS.

25 10. A software product according to Claim 6, where at least one of the software servers is operating under Macintosh OS.

11. A software product according to Claim 6, where at least one of the software servers is CATIA.

12. A software product according to Claim 6, where at least one of the software servers is PARTRAN.

13. A software product according to Claim 6, where at least one of the software servers is an Manufacturing Enterprise System.

5 14. A software product according to Claim 6, where at least one of the software servers is a workstation management system.

15. A software product according to Claim 6, where at least one of the software servers is AutoCAD.

10 16. A software product according to Claim 6, where at least one of the software servers is ADEPT.

17. A software product according to Claim 6, where at least one of the software servers is Scheduling Software.

18. A software product according to Claim 6, where at least one of the software servers is an e-mail server.

15 19. A software product according to Claim 6, where at least one of the software servers is a parts catalogue.

20. A software product according to Claim 6, where at least one of the software servers is an assembly procedure library

20 21. A software product according to Claim 6, where at least one of the software servers is a warehouse management program.

22. A software product according to Claim 6, where at least one of the software servers is a human resources management program.

23. A software product according to Claim 6, where at least one of the software servers is a benefits management software program.

25 24. A software product according to Claim 6, where at least one of the software servers is an internet router.

25. A software product according to Claim 6, where at least one of the software servers is an intranet server.

26. A method of serving information from at least one server comprising:

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- a. logging on to a high-level meta-layer computer product;
 - b. requesting information from the computer product;
 - c. examining the requested information to determine the server containing the requested information;
 - d. transmitting the information request to the appropriate server;
 - e. receiving the requested information from the appropriate server; and,
 - f. displaying the requested information.
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27. The method of Claim 26 wherein the logging on comprises receiving security privileges on the at least one server according to a log-on identity.
 28. The method of Claim 27 wherein the security privileges accorded to the log-on identity are defined by a system administrator.
 29. The method of Claim 26 wherein requesting information occurs through interaction with a browser.
 30. The method of Claim 26 wherein requesting information occurs through interaction with a graphic user interface.
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 31. The method of Claim 26 wherein examining comprises a log-in to an appropriate remote server.
 32. The method of Claim 26 wherein examining comprises presenting options to the user and presenting information according to a chosen option from the user.
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 33. The method of Claim 26 wherein transmitting means sending a request by means of a computer network.
 34. The method of Claim 33 wherein the network is a LAN.
 35. The method of Claim 33 wherein the network is a WAN.
 36. The method of Claim 33 wherein the network is the Internet.
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 37. The method of Claim 33 wherein the network is a wireless network.
 38. The method of Claim 33 wherein the network is a satellite link.

39. The method of Claim 33 wherein the network links to at least one remote server.

40. The method of Claim 26 wherein receiving means receiving a request by means of a computer network.

41. The method of Claim 39 wherein the network is a LAN.

5 42. The method of Claim 40 wherein the network is a WAN.

43. The method of Claim 40 wherein the network is the Internet.

44. The method of Claim 40 wherein the network is a wireless network.

45. The method of Claim 40 wherein the network is a satellite link.

46. The method of Claim 40 wherein the network links to at least one remote server.

10 47. The method of Claim 26 wherein displaying is by means of a browser.

48. The method of Claim 26 wherein displaying is by means of a graphic user interface.

49. A system for sharing information incident to manufacturing comprising:

a. a computer network, itself comprising at least one server;

15 b. at least one computer remote to the server and connected to the computer to allow communication with the server;

c. a plurality of software servers containing data incident to manufacturing and communicatively connected to the network; and

d. a software product, itself comprising:

20 i. a structured data exchange;

ii. wrappers for communication between each of the software servers and a structured data exchange; and

iii. a graphic user interface generator for displaying information from the structured data exchange.

25 50. A system according to Claim 49, where the graphic user interface generator is an HTML page generator.

51. A system according to Claim 49, where the graphic user interface generator is JAVA.

52. A system according to Claim 49, where at least one of the software servers is operating under UNIX.

5 53. A system according to Claim 49, where at least one of the software servers is operating under LINUX.

54. A system according to Claim 49, where at least one of the software servers is operating under Windows.

10 55. A system according to Claim 49, where at least one of the software servers is operating under DOS.

56. A system according to Claim 49, where at least one of the software servers is operating under Macintosh OS.

57. A system according to Claim 49, where at least one of the software servers is CATIA.

15 58. A system according to Claim 49, where at least one of the software servers is PARTRAN.

59. A system according to Claim 49, where at least one of the software servers is an Manufacturing Enterprise System.

20 60. A system according to Claim 49, where at least one of the software servers is a workstation management system.

61. A system according to Claim 49, where at least one of the software servers is AutoCAD.

62. A system according to Claim 49, where at least one of the software servers is ADEPT.

25 63. A system according to Claim 49, where at least one of the software servers is Scheduling Software.

64. A system according to Claim 49, where at least one of the software servers is an e-mail server.

65. A system according to Claim 49, where at least one of the software servers is a parts catalogue.

66. A system according to Claim 49, where at least one of the software servers is an assembly procedure library

5 67. A system according to Claim 49, where at least one of the software servers is a warehouse management program.

68. A system according to Claim 49, where at least one of the software servers is a human resources management program.

10 69. A system according to Claim 49, where at least one of the software servers is a benefits management software program.

70. A system according to Claim 49, where at least one of the software servers is an internet router.

71. A system according to Claim 49, where at least one of the software servers is an intranet server.

15 72. The system of Claim 40 wherein the network is the Internet.

73. The system of Claim 40 wherein the network is a wireless network.

74. The system of Claim 40 wherein the network is a satellite link.

75. The system of Claim 40 wherein the network links to at least one remote server